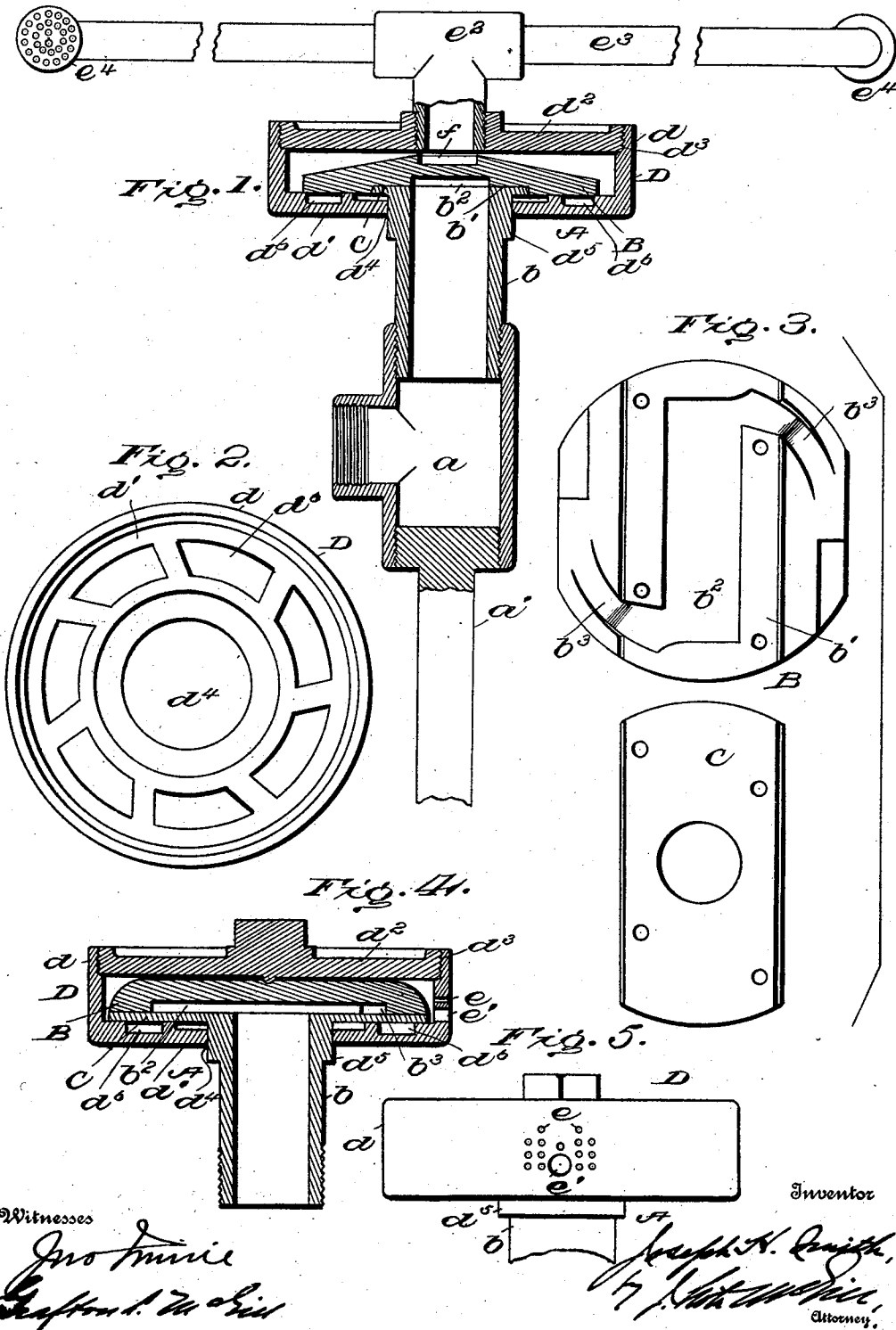


(No Model.)

J. H. SMITH.
LAWN SPRINKLER.

No. 601,065.

Patented Mar. 22, 1898.



Witnesses

Geo. Smith
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Inventor

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UNITED STATES PATENT OFFICE.

JOSEPH H. SMITH, OF WASHINGTON, DISTRICT OF COLUMBIA.

LAWN-SPRINKLER.

SPECIFICATION forming part of Letters Patent No. 601,065, dated March 22, 1898.

Application filed October 30, 1897. Serial No. 656,962. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH H. SMITH, of Washington, in the District of Columbia, have invented certain new and useful Improvements in Lawn-Sprinklers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention contemplates certain new and useful improvements in lawn-sprinklers.

The object of the invention is, primarily, to provide a simple and inexpensive sprinkler which will be free of all parts liable to get out of order, and, secondarily, to enable a large area to be sprinkled by a single device.

The invention will be hereinafter fully set forth, and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a view in side elevation, parts being in section and the other parts broken away. Fig. 2 is a plan view of the rotary head. Fig. 3 is a view of the stationary head with parts detached. Fig. 4 is a vertical sectional view of a slightly-modified form. Fig. 5 is a detail thereof.

Referring to the drawings, A designates the sprinkler as an entirety, *a* a T-joint into which opens a water-supply hose, and *a'* a supporting-rod by which the sprinkler can be positioned at any desired point, the lower end of said rod being forced into the ground.

B is a stationary head which is provided with a depending pipe-section *b*, exteriorly threaded, so as to enter the upper threaded end of T-joint *a*. In the under side of head B is a wide transverse groove *b'* and a cut-out *b²*, forming a water-channel, from each end of which leads a port *b³*. These ports form outlets and are extended in opposite directions through and beyond the sides of the groove *b²*, terminating at their outer ends flush with the lower face of the head B.

Within the groove *b'* is fitted a flat plate C, preferably formed integral with the upper end of pipe-section *b*. Hence water entering from said pipe-section will travel through the channel formed by cut-out *b²* and escape in opposite directions through ports *b³*.

D is the rotary head, which is of circular

form, being provided with a rim-*d*, a bottom *d'*, preferably integral with said rim, and a removable top *d²*, which is held to the rim by screw-threads *d³*. In the center of bottom *d'* is a hole *d⁴*, which accommodates a boss or circular enlargement *d⁵* of pipe-section *b*. On the upper surface of this bottom is a circular series of grooves *d⁶*, having inclined bottoms, forming buckets. Water discharged in opposite directions from the stationary head will strike these buckets and cause the rotation of head D. In the form shown in Figs. 5 and 6 the water will find its escape through a series of perforations *e* and a hole *e'*, formed in rim *d*. When the outflow is greater than desired, the hole *e'* may be closed by a plug. In the form shown in Fig. 1 the water passes up over the stationary head and out through a central opening in top *d²*. In this opening is fitted a T-joint *e²*, into which are screwed the inner ends of two small pipes *e³*. These pipes may be of any suitable and desired length, and to the outer ends thereof are secured oppositely-faced sprayers *e⁴*, through which the water will be emitted in spray form. While this form is desirable where a large area of ground is to be sprinkled, yet for all ordinary purposes the escape of the water direct through the perforations in the rim of the rotary head will suffice. When the lateral distributing-pipes are employed, I form a slight depression *f* in the top of the stationary head and give a decided taper to the upper surface of the latter.

The advantages of my invention are apparent to those skilled in the art to which it appertains.

It will be seen that a sprinkler constructed as herein described is extremely simple and inexpensive and not liable to readily get out of order, it being free from all movable parts save the rotary head.

I claim as my invention—

1. A lawn-sprinkler comprising a rotary head of circular form having water-outlets, a stationary head inclosed by said rotary head having a water-pipe leading into its under side, and a channel in the under side of said stationary head opening laterally at its ends, whereby the water discharged therefrom impinging against the bottom of said rotary

head will effect the rotation of the latter, substantially as set forth.

2. A lawn-sprinkler comprising a rotary head of circular form having water-outlets, a stationary head inclosed by said rotary head having a channel in its under side opening at its ends into two lateral, oppositely-extended ports, a plate attached to said head extending across said channel, and a water-pipe opening through said plate into said channel, substantially as set forth.

3. A lawn-sprinkler comprising a rotary head of circular form having water-outlets and bucket-grooves in its bottom, a stationary head inclosed by said rotary head and having a recess and channel in its under side and oppositely-extended lateral ports, one at each end of said channel, a plate fitted in said recess, and a pipe-section extended from said plate through the bottom of said rotary head, substantially as set forth.

4. A lawn-sprinkler comprising a rotary head having a circular bottom formed with a central opening and a series of water-

grooves in its inner face, a top removably secured to said head, a stationary head inclosed by said rotary head and having a water-channel and oppositely-extended lateral ports in its under side, and a pipe-section opening into said channel and extended through said central opening in the bottom of said rotary head, substantially as set forth.

5. The combination with the stationary head having a central water-inlet and laterally-extended outlet-ports, of the rotary head inclosing said stationary head and having an opening in its top and laterally-extended pipes leading from said opening and having sprayers on their outer ends, substantially as set forth.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

JOSEPH H. SMITH.

Witnesses:

J. NOTA MCGILL,
GRAFTON L. MCGILL.